



SEQUENCE LISTING

<110> Rothbard, Jonathan B.
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CellGate, Inc.

<120> Compositions and Methods for Enhancing
Drug Delivery Across and Into Ocular Tissues

<130> 019801-000240US

<140> US 10/083,960
<141> 2002-02-25

<150> US 60/150,510
<151> 1999-08-24

<150> US 09/648,400
<151> 2000-08-24

<150> US 09/792,480
<151> 2001-02-23

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1 5

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<220>
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1 5

<210> 3
<211> 7
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<220>
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1 5

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<220>
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1 5

<210> 5
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<220>
<223> R9 Arg homopolymer

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1 5

<210> 6
<211> 7
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<220>
<223> L-Arg heptamer after release of cyclosporine by
      cleavage of the pH sensitive linker group

<221> MOD_RES
<222> (1)...(1)
<223> Xaa =
      2 - [4-benzyl-2,5-diketopiperazinyl]-acetyl-arginine

<400> 6
Xaa Arg Arg Arg Arg Arg Arg
1 5

<210> 7
<211> 10
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<213> Artificial Sequence

<220>
<223> unlabeled peptide

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = cysteinamide

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<400> 7
Arg Arg Arg Arg Arg Arg Gly Gly Xaa
1 5 10

<210> 8
<211> 10
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<220>
<223> analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 8
Xaa Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 9
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<220>
<223> Tat-49-56 truncated analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 9
Xaa Arg Lys Lys Arg Arg Gln Arg Arg
1 5

<210> 10
<211> 8
<212> PRT
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<220>
<223> Tat-49-55 truncated analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 10
Xaa Arg Lys Lys Arg Arg Gln Arg
1 5

<210> 11
<211> 9
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<223> Tat-50-57 truncated analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

      <400> 11
Xaa Lys Lys Arg Arg Gln Arg Arg Arg
    1           5

      <210> 12
      <211> 8
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      <213> Artificial Sequence

      <220>
      <223> Tat-51-57 truncated analog of Tat-49-57

      <221> MOD_RES
      <222> (1)...(1)
      <223> Xaa = fluorescein conjugated aminohexanoic acid
            (Fl-ahx)

      <400> 12
Xaa Lys Arg Arg Gln Arg Arg Arg
    1           5

      <210> 13
      <211> 10
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      <220>
      <223> A-49 alanine-substituted analog of Tat-49-57

      <221> MOD_RES
      <222> (1)...(1)
      <223> Xaa = fluorescein conjugated aminohexanoic acid
            (Fl-ahx)

      <400> 13
Xaa Ala Lys Lys Arg Arg Gln Arg Arg Arg
    1           5           10

      <210> 14
      <211> 10
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      <220>
      <223> A-50 alanine-substituted analog of Tat-49-57

      <221> MOD_RES
      <222> (1)...(1)
      <223> Xaa = fluorescein conjugated aminohexanoic acid
            (Fl-ahx)
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<400> 14
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1 5 10

<210> 15
<211> 10
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<220>
<223> A-51 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 15
Xaa Arg Lys Ala Arg Arg Gln Arg Arg Arg
1 5 10

<210> 16
<211> 10
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<220>
<223> A-52 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 16
Xaa Arg Lys Lys Ala Arg Gln Arg Arg Arg
1 5 10

<210> 17
<211> 10
<212> PRT
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<220>
<223> A-53 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(Fl-ahx)

<400> 17
Xaa Arg Lys Lys Arg Ala Gln Arg Arg Arg
1 5 10

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

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<223> A-54 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 18
Xaa Arg Lys Lys Arg Arg Ala Arg Arg Arg
  1           5           10

<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> A-55 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 19
Xaa Arg Lys Lys Arg Arg Gln Ala Arg Arg
  1           5           10

<210> 20
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> A-56 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 20
Xaa Arg Lys Lys Arg Arg Gln Arg Ala Arg
  1           5           10

<210> 21
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> A-57 alanine-substituted analog of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

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<400> 21
Xaa Arg Lys Lys Arg Arg Gln Arg Arg Ala
1 5 10

<210> 22
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Tat-57-49 retro-isomer of Tat-49-57

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(F1-ahx)

<400> 22
Xaa Arg Arg Arg Gln Arg Arg Lys Lys Arg
1 5 10

<210> 23
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> R5 Arg oligomer

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(F1-ahx)

<400> 23
Xaa Arg Arg Arg Arg Arg
1 5

<210> 24
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> R6 Arg oligomer

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
(F1-ahx)

<400> 24
Xaa Arg Arg Arg Arg Arg Arg
1 5

<210> 25
<211> 8
<212> PRT
<213> Artificial Sequence

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<220>
<223> R7 Arg oligomer

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 25
Xaa Arg Arg Arg Arg Arg Arg Arg
1           5

<210> 26
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> R8 Arg oligomer

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 26
Xaa Arg Arg Arg Arg Arg Arg Arg
1           5

<210> 27
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> R9 Arg oligomer

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated aminohexanoic acid
      (Fl-ahx)

<400> 27
Xaa Arg Arg Arg Arg Arg Arg Arg Arg
1           5           10

<210> 28
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HIV-1 Tat protein basic region

<400> 28
Arg Lys Lys Arg Arg Gln Arg Arg Arg
1           5

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<210> 29
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Antennapedia homeodomain region residues 43-58

<400> 29
Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 30
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Antennapedia homeodomain region residues 43-58

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein conjugated amino hexanoic acid
      (Fl-ahx)

<400> 30
Xaa Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys
1 5 10 15
Lys

<210> 31
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety
      DTPA-aca-R7-CO2H

<221> MOD_RES
<222> (1)...(1)
<223> amino acaproic acid (aca) linked to
      diethylenetriaminepentaacetic acid (DTPA)

<400> 31
Xaa Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 32
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety
      NH-2-R-7CCONH-2.8TFA

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = cysteinaminde

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<400> 32
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1 5

<210> 33
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(5)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 33
Arg Xaa Arg Arg Xaa Arg Arg
1 5

<210> 34
<211> 10
<212> PRT
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<220>
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<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(5)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 34
Arg Xaa Arg Arg Xaa Arg Arg Xaa Arg Arg
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<210> 35
<211> 13
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<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

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<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(5)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(11)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 35
Arg Xaa Arg Arg Xaa Arg Arg Xaa Arg Arg Xaa Arg Arg
1           5           10

<210> 36
<211> 16
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<220>
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<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(5)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(11)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(14)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 36
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1           5           10           15

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<210> 37
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly or epsilon-amino caproic acid

<400> 37
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1 5 10

<210> 38
<211> 9
<212> PRT
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<220>
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<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 38
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1 5

<210> 39
<211> 11
<212> PRT
<213> Artificial Sequence

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<220>
<223> delivery enhancing transporter moiety

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<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 39
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    1           5           10

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<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
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<221> MOD_RES
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      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (12)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
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1          5           10

<210> 41
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      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
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<400> 41
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1          5           10           15

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<210> 42
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (12)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (16)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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     1          5          10          15
Arg

<210> 43
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

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<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (12)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 43
Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa
    1          5          10          15
Arg Xaa Arg

<210> 44
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

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<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (4)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (12)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(14)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (16)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 44
Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa
    1          5          10          15
Arg Xaa Arg Xaa Arg
    20

<210> 45
<211> 13
<212> PRT
<213> Artificial Sequence

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<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
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<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = Gly or epsilon-amino caproic acid

<221> MOD_RES
<222> (12)...(12)
<223> Xaa = Gly or epsilon-amino caproic acid

<400> 45
Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg Xaa Arg
      1           5           10

<210> 46
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<400> 46
Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg
1           5           10

<210> 47
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(15)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 47
Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg
1           5           10           15

<210> 48
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(15)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (17)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 48
Arg Xaa Xaa Arg
    1           5           10          15
Xaa Xaa Arg

<210> 49
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(15)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (17)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (20)...(21)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

      <400> 49
Arg Xaa Xaa Arg
    1           5           10          15
Xaa Xaa Arg Xaa Xaa Arg
    20

      <210> 50
      <211> 25
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> delivery enhancing transporter moiety

      <221> MOD_RES
      <222> (2)...(3)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (5)...(6)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (8)...(9)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (11)...(12)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (14)...(15)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (17)...(18)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (20)...(21)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

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<221> MOD_RES
<222> (23)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 50
Arg Xaa Xaa Arg
    1           5           10          15
Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg
    20          25

<210> 51
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(15)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (17)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (20)...(21)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (23)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (26)...(27)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 51
Arg Xaa Xaa Arg
   1           5           10          15
Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg
   20          25

<210> 52
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(3)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (5)...(6)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (8)...(9)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (11)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(15)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (17)...(18)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (20)...(21)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (23)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid
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<221> MOD_RES
<222> (26)...(27)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (29)...(30)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

      <400> 52
Arg Xaa Xaa Arg
    1           5           10          15
Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg
    20          25          30

      <210> 53
      <211> 19
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> delivery enhancing transporter moiety

      <221> MOD_RES
      <222> (2)...(3)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (5)...(6)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (8)...(9)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (11)...(12)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (14)...(15)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (17)...(18)
      <223> Xaa = Gly or epsilon-amino caproic acid

      <400> 53
Arg Xaa Xaa Arg
    1           5           10          15
Xaa Xaa Arg

      <210> 54
      <211> 17
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> delivery enhancing transporter moiety

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<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 54
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
    1           5           10          15
Arg

<210> 55
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<400> 55
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
1 5 10 15
Arg Xaa Xaa Xaa Arg
20

<210> 56
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (22)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 56
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
1 5 10 15
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg
20 25

<210> 57
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

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<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (22)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (26)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 57
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
     1           5           10          15
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg
     20          25

<210> 58
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (22)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (26)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(32)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 58
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
     1          5          10         15
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
     20          25          30
Arg

<210> 59
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (2)...(4)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (6)...(8)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (10)...(12)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (22)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (26)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(32)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (34)...(36)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

      <400> 59
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
      1           5           10          15
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
      20          25          30
Arg Xaa Xaa Xaa Arg
      35

      <210> 60
      <211> 41
      <212> PRT
      <213> Artificial Sequence

      <220>
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      <221> MOD_RES
      <222> (2)...(4)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (6)...(8)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

      <221> MOD_RES
      <222> (10)...(12)
      <223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
            or epsilon-amino caproic acid

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<221> MOD_RES
<222> (14)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(20)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (22)...(24)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (26)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(32)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (34)...(36)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (38)...(40)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<400> 60
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa
    20          25          30
Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg
    35          40

<210> 61
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<400> 61
Arg Gly Gly Gly Arg Gly Gly Arg Gly Gly Arg Gly Gly Gly
    1           5           10          15
Arg Gly Gly Gly Arg Gly Gly Arg
    20          25

<210> 62
<211> 33
<212> PRT
<213> Artificial Sequence

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<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (15)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (24)...(33)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 24-33 may be present or absent

<400> 62
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
     1           5           10          15
Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     20          25          30
Xaa

<210> 63
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (15)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (24)...(25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27)...(36)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 27-36 may be present or absent

<400> 63
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa
    20          25          30
Xaa Xaa Xaa Xaa
    35

<210> 64
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (15)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (24)...(25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(39)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 30-39 may be present or absent

<400> 64
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Xaa
    20          25          30
Xaa Xaa Xaa Xaa Xaa Xaa
    35

<210> 65
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (15)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (24)...(25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(31)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (33)...(42)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 33-42 may be present or absent

<400> 65
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Arg
    20          25          30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    35          40

<210> 66
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (15)...(16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18)...(19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (24) ... (25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27) ... (28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30) ... (31)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (33) ... (34)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (36) ... (45)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 36-45 may be present or absent

<400> 66
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Arg
    20          25          30
Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    35          40          45

<210> 67
<211> 48
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1) ... (10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12) ... (13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (15) ... (16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18) ... (19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (21)...(22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (24)...(25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27)...(28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30)...(31)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (33)...(34)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (36)...(37)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (39)...(48)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 39-48 may be present or absent

<400> 67
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
    1           5           10          15
Arg Xaa Xaa Arg
    20          25          30
Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    35          40          45

<210> 68
<211> 51
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(10)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 1-10 may be present or absent

<221> MOD_RES
<222> (12)...(13)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

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<221> MOD_RES
<222> (15) ... (16)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (18) ... (19)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (21) ... (22)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (24) ... (25)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (27) ... (28)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (30) ... (31)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (33) ... (34)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (36) ... (37)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (39) ... (40)
<223> Xaa = Gly, beta-alanine, gamma-amino butyric acid
      or epsilon-amino caproic acid

<221> MOD_RES
<222> (42) ... (51)
<223> Xaa = any natural or non-natural amino acid, Xaa
      at positions 42-51 may be present or absent

      <400> 68
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa
      1           5           10          15
Arg Xaa Xaa Arg
      20          25          30
Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      35          .          40          45
Xaa Xaa Xaa
      50

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<210> 69
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = N-acetyl cysteine

<221> MOD_RES
<222> (2)...(2)
<223> Xaa = aminocaproic acid

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = argininamide

<400> 69
Xaa Xaa Arg Arg Arg Arg Arg Arg Arg Xaa
1 5 10

<210> 70
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = copper-diethylenetriaminepentaacetic acid
complex (Cu-DTPA) linked to aminocaproic acid
(aca)

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = Arg bound to peptide synthesizer solid-phase
resin

<400> 70
Xaa Arg Arg Arg Arg Arg Arg Xaa
1 5

<210> 71
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = diethylenetriaminepentaacetic acid (DTPA)
linked to aminocaproic acid (aca)

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<400> 71
Xaa Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 72
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = copper-diethylenetriaminepentaacetic acid
      complex (Cu-DTPA) linked to aminocaproic acid
      (aca)

<400> 72
Xaa Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 73
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = biotinylated aminocaproic acid (aca)

<221> MOD_RES
<222> (11)...(11)
<223> Xaa = cysteinamide conjugated to hydrocortisone

<400> 73
Xaa Arg Arg Arg Arg Arg Arg Ala Ala Xaa
1 5 10

<210> 74
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = Arg conjugated to benzyl (Bz) and acetyl
      (Ac) protected C-2' derivative of taxol through
      benzyl-(para-hydroxy benzoate) carbonate

<400> 74
Xaa Arg Arg Arg Arg Arg Arg
1 5

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```

<210> 75
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = Arg conjugated to benzyl (Bz) and acetyl
      (Ac) protected C-2' derivative of taxol through
      benzyl-(para-hydroxy benzoate) carbamate

      <400> 75
Xaa Arg Arg Arg Arg Arg Arg
  1           5

      <210> 76
      <211> 6
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> delivery enhancing transporter moiety conjugate

      <221> MOD_RES
      <222> (1)...(1)
      <223> Xaa = fluorescein isothiocyanate (FITC) labeled
            aminocaproic acid (aca)

      <221> MOD_RES
      <222> (6)...(6)
      <223> Xaa = argininamide

      <400> 76
Xaa Arg Arg Arg Arg Xaa
  1           5

      <210> 77
      <211> 7
      <212> PRT
      <213> Artificial Sequence

      <220>
      <223> delivery enhancing transporter moiety conjugate

      <221> MOD_RES
      <222> (1)...(1)
      <223> Xaa = fluorescein isothiocyanate (FITC) labeled
            aminocaproic acid (aca)

      <221> MOD_RES
      <222> (7)...(7)
      <223> Xaa = argininamide

      <400> 77
Xaa Arg Arg Arg Arg Arg Xaa
  1           5

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```

<210> 78
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein isothiocyanate (FITC) labeled
      aminocaproic acid (aca)

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = argininamide

<400> 78
Xaa Arg Arg Arg Arg Arg Arg Xaa
 1           5

<210> 79
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein isothiocyanate (FITC) labeled
      aminocaproic acid (aca)

<221> MOD_RES
<222> (9)...(9)
<223> Xaa = argininamide

<400> 79
Xaa Arg Arg Arg Arg Arg Arg Arg Xaa
 1           5

<210> 80
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = fluorescein isothiocyanate (FITC) labeled
      aminocaproic acid (aca)

<221> MOD_RES
<222> (10)...(10)
<223> Xaa = argininamide

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<400> 80
Xaa Arg Arg Arg Arg Arg Arg Arg Arg Xaa
1 5 10

<210> 81
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = 6-maleimidocaproic hydrazone derivative of
      FK506 conjugated to Cys

<400> 81
Arg Arg Arg Arg Arg Arg Arg Xaa
1 5

<210> 82
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (8)...(8)
<223> Xaa = dithioethyl hydrazone derivative of FK506
      conjugated to Cys

<400> 82
Arg Arg Arg Arg Arg Arg Arg Xaa
1 5

<210> 83
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = biotinylated aminocaproic acid (aca)

<221> MOD_RES
<222> (7)...(7)
<223> Xaa = cysteinamide

<400> 83
Xaa Arg Arg Arg Arg Arg Arg Xaa
1 5

```

```

<210> 84
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = biotinylated aminocaproic acid (aca)

<221> MOD_RES
<222> (9)...(9)
<223> Xaa = cysteinamide

<400> 84
Xaa Arg Arg Arg Arg Arg Arg Arg Xaa
1 5

<210> 85
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> delivery enhancing transporter moiety conjugate

<221> MOD_RES
<222> (1)...(1)
<223> Xaa = biotinylated aminocaproic acid (aca)

<221> MOD_RES
<222> (11)...(11)
<223> Xaa = cysteinamide

<400> 85
Xaa Arg Arg Arg Arg Arg Arg Arg Arg Xaa
1 5 10

<210> 86
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial
      Sequence:delivery-enhancing transporter polymer of
      poly-arginine molecules between 6 and 25 residues
      in length

<220>
<221> MOD_RES
<222> (7)..(25)
<223> Arg at positions 7-25 may be present or absent

<400> 86
Arg Arg
1 5 10 15
Arg Arg Arg Arg Arg Arg Arg Arg Arg
20 25

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